

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/733,692A

DATE: 06/26/2001  
TIME: 12:56:33

Input Set : A:\Nih40411.app  
Output Set: N:\CRF3\06262001\I733692A.raw

ENTERED

3 <110> APPLICANT: Murphy, Brian R.  
4 Collins, Peter L.  
5 Schmidt, Alexander C.  
6 Durbin, Anna P.  
7 Skiadopoulos, Mario H.  
8 Tao, Tao  
10 <120> TITLE OF INVENTION: USE OF RECOMBINANT PARAINFLUENZA VIRUSES (PIVs) AS  
11 VECTORS TO PROTECT AGAINST INFECTION AND DISEASE CAUSED  
12 BY PIV AND OTHER HUMAN PATHOGENS  
14 <130> FILE REFERENCE: 15280-404100US  
C--> 16 <140> CURRENT APPLICATION NUMBER: US/09/733,692A  
17 <141> CURRENT FILING DATE: 2000-12-08  
19 <150> PRIOR APPLICATION NUMBER: 60/170,195  
20 <151> PRIOR FILING DATE: 1999-12-10  
22 <160> NUMBER OF SEQ ID NOS: 62  
24 <170> SOFTWARE: PatentIn Ver. 2.1  
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27 <211> LENGTH: 42  
28 <212> TYPE: DNA  
29 <213> ORGANISM: Artificial Sequence  
31 <220> FEATURE:  
32 <223> OTHER INFORMATION: Description of Artificial Sequence: Sequence of  
33 pFLC.PIV32CT, 15474 bp in sense orientation.  
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36 cttaagaata tacaaataag aaaaacttag gattaaagag cg 42  
39 <210> SEQ ID NO: 2  
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41 <212> TYPE: DNA  
42 <213> ORGANISM: Artificial Sequence  
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46 sequence of Measles HA gene insert for N-P and P-M  
47 junctions  
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55 <212> TYPE: DNA  
56 <213> ORGANISM: Artificial Sequence  
58 <220> FEATURE:  
59 <223> OTHER INFORMATION: Description of Artificial Sequence: Flanking  
60 sequence of Measles HA gene insert for HN-L  
61 junction  
63 <400> SEQUENCE: 3  
64 aggcctaaaa gggaaatata aaaaacttag gagtaaagtt acgcaatcca actctactca 60  
65 tataattgag gaaggaccca atagacaaat ccaaattcga g 101  
68 <210> SEQ ID NO: 4

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73 <220> FEATURE:
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75     sequence of Measles HA gene insert for HN-L
76     junction
78 <400> SEQUENCE: 4
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80 gcaatcagac aataggcct 79
83 <210> SEQ ID NO: 5
84 <211> LENGTH: 64
85 <212> TYPE: DNA
86 <213> ORGANISM: Artificial Sequence
88 <220> FEATURE:
89 <223> OTHER INFORMATION: Description of Artificial Sequence: Cloning site
90     for GU insertion
92 <400> SEQUENCE: 5
93 aggaaaaggg aaatataaaa aacttaggag taaagttacg cgtgttaact tcgaagagct 60
94 ccct 64
97 <210> SEQ ID NO: 6
98 <211> LENGTH: 38
99 <212> TYPE: DNA
100 <213> ORGANISM: Artificial Sequence
102 <220> FEATURE:
103 <223> OTHER INFORMATION: Description of Artificial Sequence: Cloning site
104     for NCR insertion
106 <400> SEQUENCE: 6
107 aggaaaaggg aacgcgtgtt aacttcgaag agctccct 38
110 <210> SEQ ID NO: 7
111 <211> LENGTH: 63
112 <212> TYPE: DNA
113 <213> ORGANISM: Artificial Sequence
115 <220> FEATURE:
116 <223> OTHER INFORMATION: Description of Artificial Sequence: Cloning site
117     for supernumerary gene insert between the P and M
118     genes of rHPIV3
120 <400> SEQUENCE: 7
121 ttaacaatat acaaataaga aaaacttagg attaaagagc catggcgtac gaagcttacg 60
122 cgt 63
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126 <211> LENGTH: 12
127 <212> TYPE: DNA
128 <213> ORGANISM: Artificial Sequence
130 <220> FEATURE:
131 <223> OTHER INFORMATION: Description of Artificial Sequence: PIV3 gene end
132     (GE) sequence
134 <400> SEQUENCE: 8
135 aagtaagaaa aa 12

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138 <210> SEQ ID NO: 9
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144 <223> OTHER INFORMATION: Description of Artificial Sequence: Cloning site
145     for RSV G and F gene inserts in B/H PIV3
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148 aggattaaag aactttaccg aaaggtaagg ggaaagaaat cctaagagct tagcgatg    58
151 <210> SEQ ID NO: 10
152 <211> LENGTH: 11
153 <212> TYPE: DNA
154 <213> ORGANISM: Artificial Sequence
156 <220> FEATURE:
157 <223> OTHER INFORMATION: Description of Artificial Sequence: Flanking
158     sequence for RSV G gene insert in B/H PIV3
160 <400> SEQUENCE: 10
161 gcttagcgat g                                                    11
164 <210> SEQ ID NO: 11
165 <211> LENGTH: 15
166 <212> TYPE: DNA
167 <213> ORGANISM: Artificial Sequence
169 <220> FEATURE:
170 <223> OTHER INFORMATION: Description of Artificial Sequence: Flanking
171     sequence of RSV G and F gene inserts in B/H PIV3
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174 aagctagcgc ttagc                                                    15
177 <210> SEQ ID NO: 12
178 <211> LENGTH: 24
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182 <220> FEATURE:
183 <223> OTHER INFORMATION: Description of Artificial Sequence: Flanking
184     sequence for RSV F gene insert in B/H PIV3
186 <400> SEQUENCE: 12
187 gcttagcaaa aagctagcac aatg                                                    24
190 <210> SEQ ID NO: 13
191 <211> LENGTH: 83
192 <212> TYPE: DNA
193 <213> ORGANISM: Artificial Sequence
195 <220> FEATURE:
196 <223> OTHER INFORMATION: Description of Artificial Sequence: Forward primer
197     for PCR of measles HA gene insert for N-P and P-M
198     junctions
200 <400> SEQUENCE: 13
201 ttaatcttaa gaatatacaa ataagaaaaa cttaggatta aagagcgatg tcaccacaac    60
202 gagaccggat aaatgccttc tac                                                    83
205 <210> SEQ ID NO: 14
206 <211> LENGTH: 67

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207 <212> TYPE: DNA  
208 <213> ORGANISM: Artificial Sequence  
210 <220> FEATURE:  
211 <223> OTHER INFORMATION: Description of Artificial Sequence: Reverse primer  
212 for PCR of measles HA gene insert for N-P and P-M  
213 junctions  
215 <400> SEQUENCE: 14  
216 attattgctt aaggtttgtt cggtgtcgtt tctttgttgg atcctatctg cgattgggttc 60  
217 catcttc 67  
220 <210> SEQ ID NO: 15  
221 <211> LENGTH: 55  
222 <212> TYPE: DNA  
223 <213> ORGANISM: Artificial Sequence  
225 <220> FEATURE:  
226 <223> OTHER INFORMATION: Description of Artificial Sequence: Forward primer  
227 for PCR of measles HA gene insert for HN-L  
228 junction  
230 <400> SEQUENCE: 15  
231 gacaataggc ctaaaaggga aatataaaaa acttaggagt aaagttacgc aatcc 55  
234 <210> SEQ ID NO: 16  
235 <211> LENGTH: 68  
236 <212> TYPE: DNA  
237 <213> ORGANISM: Artificial Sequence  
239 <220> FEATURE:  
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241 Reverse/Forward primer for PCR of measles HA gene  
242 insert for HN-L junction  
244 <400> SEQUENCE: 16  
245 gtagaacgcg tttatccggt ctcgttgtgg tgacatctcg aatttggatt tgtctattgg 60  
246 gtccttcc 68  
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251 <212> TYPE: DNA  
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254 <220> FEATURE:  
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256 for PCR of measles HA gene insert for HN-L  
257 junction  
259 <400> SEQUENCE: 17  
260 ccatgtaatt gaatcccca acactagc 28  
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264 <211> LENGTH: 28  
265 <212> TYPE: DNA  
266 <213> ORGANISM: Artificial Sequence  
268 <220> FEATURE:  
269 <223> OTHER INFORMATION: Description of Artificial Sequence:  
270 Forward/Reverse primer for PCR of measles HA gene  
271 insert for HN-L junction  
273 <400> SEQUENCE: 18

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274 cggataaacg cggttctacaa agataacc                28
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282 <220> FEATURE:
283 <223> OTHER INFORMATION: Description of Artificial Sequence: Upstream HPIV2
284     HN primer
286 <400> SEQUENCE: 19
287 gggccatgga agattacagc aat                        23
290 <210> SEQ ID NO: 20
291 <211> LENGTH: 25
292 <212> TYPE: DNA
293 <213> ORGANISM: Artificial Sequence
295 <220> FEATURE:
296 <223> OTHER INFORMATION: Description of Artificial Sequence: Downstream
297     HPIV2 HN primer
299 <400> SEQUENCE: 20
300 caataagctt aaagcattag ttccc                      25
303 <210> SEQ ID NO: 21
304 <211> LENGTH: 31
305 <212> TYPE: DNA
306 <213> ORGANISM: Artificial Sequence
308 <220> FEATURE:
309 <223> OTHER INFORMATION: Description of Artificial Sequence: Upstream HPIV2
310     HN primer
312 <400> SEQUENCE: 21
313 gcgatgggcc cgaggaagga cccaatagac a              31
316 <210> SEQ ID NO: 22
317 <211> LENGTH: 30
318 <212> TYPE: DNA
319 <213> ORGANISM: Artificial Sequence
321 <220> FEATURE:
322 <223> OTHER INFORMATION: Description of Artificial Sequence: Downstream
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326 cccgggtcct gatttcccga gcacgctttg                30
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330 <211> LENGTH: 26
331 <212> TYPE: DNA
332 <213> ORGANISM: Artificial Sequence
334 <220> FEATURE:
335 <223> OTHER INFORMATION: Description of Artificial Sequence: HPIV1 HN
336     primer
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339 agtggctaata tgcattgcat ccacat                    26
342 <210> SEQ ID NO: 24
343 <211> LENGTH: 24
344 <212> TYPE: DNA

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VERIFICATION SUMMARY

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L:16 M:270 C: Current Application Number differs, Replaced Current Application Number